



# LSD1 with CoREST Protein Crystal

Catalog: CBCRY04

## PRODUCT INFORMATION

<b>Name</b>	LSD1 with CoREST Protein Crystal
<b>Cat No.</b>	CBCRY04
<b>Fragment</b>	Residues 171-836 Residues 308-482
<b>Protein Description</b>	Lysine-specific histone demethylase1 complexed with REST corepressor1
<b>Background</b>	<p>Histone modifications, such as acetylation and methylation, are important epigenetic marks that regulate diverse biological processes that use chromatin as the template, including transcription. Dysregulation of histone acetylation and methylation leads to the silencing of tumor suppressor genes and contributes to cancer progression. Inhibitors of enzymes that catalyze the addition and removal of these epigenetic marks thus have therapeutic potential for treating cancer. Lysine-specific demethylase 1 (LSD1) is the first discovered histone lysine demethylase and, with the help of its cofactor CoREST, specifically demethylates mono- and dimethylated histone H3 lysine 4 (H3-K4), thus repressing transcription.</p>
<b>Protein Classification</b>	Oxidoreductase/repressor
<b>Structure Weight</b>	101692.78 Da
<b>Method</b>	X-Ray Diffraction
<b>Resolution</b>	2.74 Å
<b>Ligand Chemical Component</b>	chloride ion, FA9, glycerol
<b>Reference</b>	Yang, M., Culhane, J.C., Szewczuk, L.M., Jalili, P., Ball, H.L., Machius, M., Cole, P.A., Yu, H. Structural Basis for the Inhibition of the Lsd1 Histone Demethylase by the Antidepressant Trans-2-Phenylcyclopropylamine. Biochemistry, 2007,46: 8058-8065